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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,091	12/21/2001	Stephen R. Forrest	10644/11902	8289

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EXAMINER

YAMNITZKY, MARIE ROSE

ART UNIT PAPER NUMBER

1774

DATE MAILED: 11/03/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

CWO-8

Office Action Summary	Application No. 10/026,091		Applicant(s) FORREST ET AL.	
	Examiner Marie R. Yamnitzky		Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 25 August 2003.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 75-109 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 75-109 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____
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1. This Office action is in response to applicants' amendment filed August 25, 2003 (Paper No. 7), which cancels claims 1-74, adds claim 75-109, and amends the specification.


Claims 75-109 are pending.

2. Claims 75-109 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The term "contiguous" (recited in new claims 75, 88, 101 and 102) does not appear in the application as originally filed.

Webster's II New Riverside University Dictionary provides three definitions for "contiguous": 1. Sharing a boundary or edge: touching. 2. Nearby: adjacent. 3. Immediately preceding or following in time.

Based on the dictionary definition, support for a "contiguous" conductive layer in a stack of subcells may be at least partially provided by the paragraph starting on page 19, line 24. However, based on applicants' comments on page 12 of Paper No. 7, it is not clear that applicants intend the term "contiguous" to have its dictionary meaning. Also, based on dependent claims 78 and 91, it is not clear that applicants are using the term "contiguous" in a manner consistent with the dictionary meaning.



The application as originally filed provides insufficient support for the open-ended range set forth in claims 76, 89 and 107. Support is provided for a conductive layer/electrode/charge transfer layer having a thickness of about 1000-4000 Angstroms, but not for such a layer having a thickness much greater than 4000 Angstroms as encompassed by the present claim language of "or greater".

3. Claims 75-109 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations imposed by the term "contiguous" as recited in claims 75, 88, 101 and 102 are not clear. It is not clear if "contiguous" places any limitations on the structure of the conductive layer/electrode/charge transfer layer or on the device as a whole beyond the requirement that the layer be disposed between and in superposed relationship with the first and second subcells, in the case of claims 75, 88 and dependents, or beyond the requirement that the layer connect two adjacent subcells, in the case of claim 101 and dependents. The term "contiguous" is not used in the application as originally filed. Based on the dictionary definitions noted in the rejection under 35 U.S.C. 112, first paragraph, it is not clear if the claims are excluding embodiments in which a transparent insulating layer separates adjacent subcells as described, for example, in the paragraph bridging pages 32 and 33 of the specification.

The structure of the device having a contiguous conductive layer between the first and second subcells is also unclear when considered in light of dependent claims 78 and 91 which

Art Unit: 1774

require the conductive layer to be part of the first subcell. It is not clear how the conductive layer can be "between" the two subcells if it is part of one of the two subcells.

The term "low" is relative. Insufficient guidance is provided in the specification to determine the scope of "low resistance" as required by claim 103.

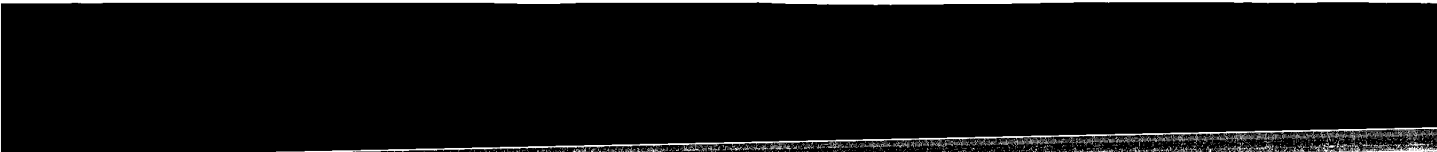
4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 75-82, 84-95 and 97-109 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6,198,092 B1. (Patent claims 10, 12 and 17 are included subject to clarification as to whether the present claim language of "contiguous" excludes embodiments having a transparent insulating layer between subcells.)

Claims 75-83, 85-96 and 98-109 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 and 29-31 of U.S. Patent No. 6,278,055 B1.



Claims 75-109 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of U.S. Patent No. 6,198,091 B1.

Although the conflicting claims are not identical, they are not patentably distinct from each other. In the case of the '092 patent, the patent claims a device comprising a plurality of organic photosensitive optoelectronic subcells that are electrically connected in parallel and are stacked in superposed relationship with each other on a substrate. In the case of the '055 patent, the patent claims a device comprising a plurality of organic photosensitive optoelectronic subcells that are electrically connected in series and are stacked in superposed relationship with each other on a substrate. In the case of the '091 patent, the patent claims a device comprising at least three organic photosensitive optoelectronic subcells that are stacked in superposed relationship with each other on a substrate, wherein some subcells are electrically connected in series and some subcells are electrically connected in parallel. Per dependent claims of each of the patents, the different subcells may have different spectral sensitivities and the photosensitive material of the different subcells may be selected so as to provide subcells having different spectral sensitivities. Each of the subcells includes a cathode and an anode and, in the case of the '055 and '091 patents, each cathode and anode is claimed as being an electrode layer or a charge transfer layer. Subject to clarification of the "contiguous" limitation of the present claims, the cathodes and anodes required by the patent claims are considered to meet the present claim requirement for a contiguous conductive layer/electrode/charge transfer layer.

With respect to specific limitations of the present claims that are not set forth in the patent claims, such as thickness limitations as in claim 76 and compositional limitations as in

claim 77, it would have been within the level of ordinary skill of a worker in the art to determine suitable and optimum thicknesses and materials.

6. Applicant is advised that should claim 75 be found allowable, claim 78 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof, and should claim 88 be found allowable, claim 92 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claims 75 and 88 require the conductive layer to be disposed “between” the first and second subcells. Claims 78 and 92 are substantial duplicates of claims 75 and 88, respectively, since a layer that is between the first and second subcells is necessarily not a part of either subcell. (This issue may be moot if the language of claims 75 and 88 is clarified.)

7. Miscellaneous:

Based on applicants’ comments on page 12 of Paper No. 7 regarding support for the “contiguous” limitation, it appears to the examiner that applicants may have intended to use the term --continuous-- instead of “contiguous”. It is the examiner’s position that claim language requiring a conductive layer or electrode or charge transfer layer that is “continuous” would also raise the issue of new matter as the term “continuous” does not appear in the application as

Art Unit: 1774

originally filed. Such claim language would also render the claims indefinite; e.g. it is not clear if a "continuous" conductive layer is one that is coextensive in surface area with the subcells which the layer is disposed between/connects.

8. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (703) 308-4413. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for Art Unit 1774 is (703) 872-9306 for all official faxes. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (703) 872-9041.)

MRY
October 31, 2003



MARIE YAMNITZKY
PRIMARY EXAMINER

1774